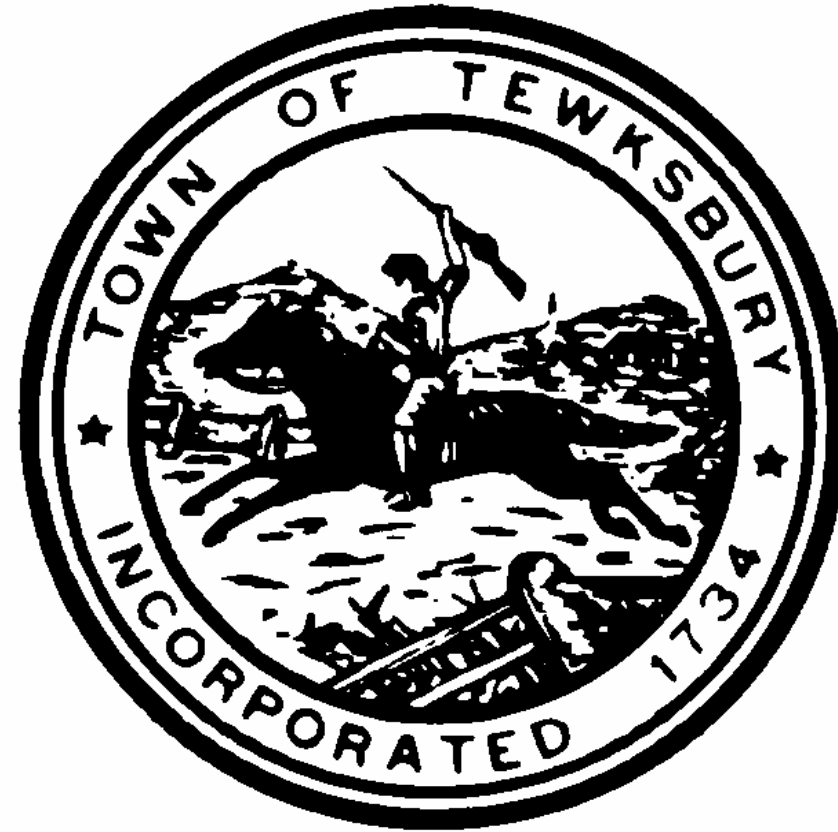


Board of Selectmen

December 6, 2022

TEWKSBURY  
FY23 SNOW and  
ICE  
PROGRAM



# Introduction

- Purpose of the snow and ice program is to maintain emergency services, and to provide routine travel for access to and from homes, businesses and public buildings
- Maintain approximately 320 lane miles of roads; 20 acres of parking lots; and 23 miles of sidewalk
- Weather conditions are closely monitored on (3) weather forecast services
- Storm variables include timing, duration, rate of snowfall, snow texture, temperature, pavement temperature, pre and post conditions

# Policies

- *Town Bylaw Chapter 8.24, Section 8.24.010, Overnight Parking – Snow and Ice Removal*
  - It shall be unlawful for any vehicle, other than one acting in an emergency to be parked on any street from 12:00 (Midnight) to 6:00 a.m. This shall take effect on November 1st of each year and end on March 31st. (A fine of \$10.00 will be imposed for a violation of this section).
  - It shall be unlawful for any vehicle, other than one acting in an emergency, to be parked on any street, day or night, when it is snowing or when icy conditions exist. (A fine of \$10.00 will be imposed for a violation of this section).
  - Any vehicle, other than one acting in an emergency, parked, day or night, on any street in the Town, so as to interfere with the work of removing or plowing snow, removing ice or sanding the street, may be removed or towed away, at the sole expense of the registered owner of said vehicle, under the authority and direction of the Superintendent of the Department of Public Works to a public garage or any convenient place. The Superintendent of the Department of Public Works, shall within a reasonable time, notify the Chief of Police of the removal of any such vehicle and of the place to which it has been removed, and the Chief of Police shall give like notice to the registered owner of the vehicle. Vehicles so towed away shall be stored in a safe place and restored to the registered owner thereof upon proper identification and full payment, to the Town or to the Keeper of the place of storage, for the expenses incurred in such removal and storage.

# Policies Continued

- *Town bylaw Chapter 12.0 Section 12.04.050 – Placing Obstruction Prohibited*

“No persons other than an employee in the service of the Town or an employee in the service of an independent contractor acting for the Town shall place or cause to be placed any obstruction which include but not be limited to, the depositing of snow, ice or the pumping of water on any traveled public way or sidewalk so as to impede the flow of traffic; or hinder the snow plowing operation on such public way; or deposit snow near or on any fire hydrant so as to obstruct the access to the fire hydrant; or allow the same to remain there without first obtaining the consent in writing of the Director of Public Works. All basketball hoops or other recreational equipment located on any right of way used by vehicular traffic shall be removed for the time period effective November 1st of each year until April 1st of the following year. Such obstruction shall not include rubbish and recyclable materials put out for collection. The Police Department will be the sole enforcing agency of this By-Law.”

Whoever violates this section shall be punished by a fine:

First Offense:	Written Warning
Second Offense:	\$ 50.00
Third and Subsequent Offenses:	\$100.00

# Operating Procedures

- (3) Major Stages to Winter Snow and Ice operations:
  - Anti-icing
  - Plowing
  - Deicing
- (2) Major Post Storm Winter Snow and Ice operations:
  - Sidewalk
  - Snow Removal

# Anti Icing Operation

- Anti-icing is conducted prior to accumulation of snow to help prevent snow from bonding and compacting on pavement surfaces;
- Salt application begins with the onset of snow, while a salt brine liquid can be applied days before;
- Anti-icing also helps to reduce accumulation of snow at the beginning of an event.



# Plowing Operation

- Plowing begins when 2-3 inches of snow has accumulated;
- Plowing physically removes snow from the street. The main objective is to keep roads passable;
- At the end of the storm, plows push back windrows and corners to provide maximum clearance.





# Deicing Operation

- Once the snowfall has stopped and roads have been cleared deicing operation commences;
- All major and minor arterials and hills are treated with salt





# Sidewalk Operation

- Post-storm operation also includes snow removal from sidewalks;
- 23 Miles of sidewalk to clear;
- Town has 3 pieces of equipment with various attachments.



# Snow Removal Operation

- Beginning this year DPW anticipates removing and hauling snow at the Ryan School campus;
- The Town will have a dedicated loader and pusherbox to be utilized in the schools

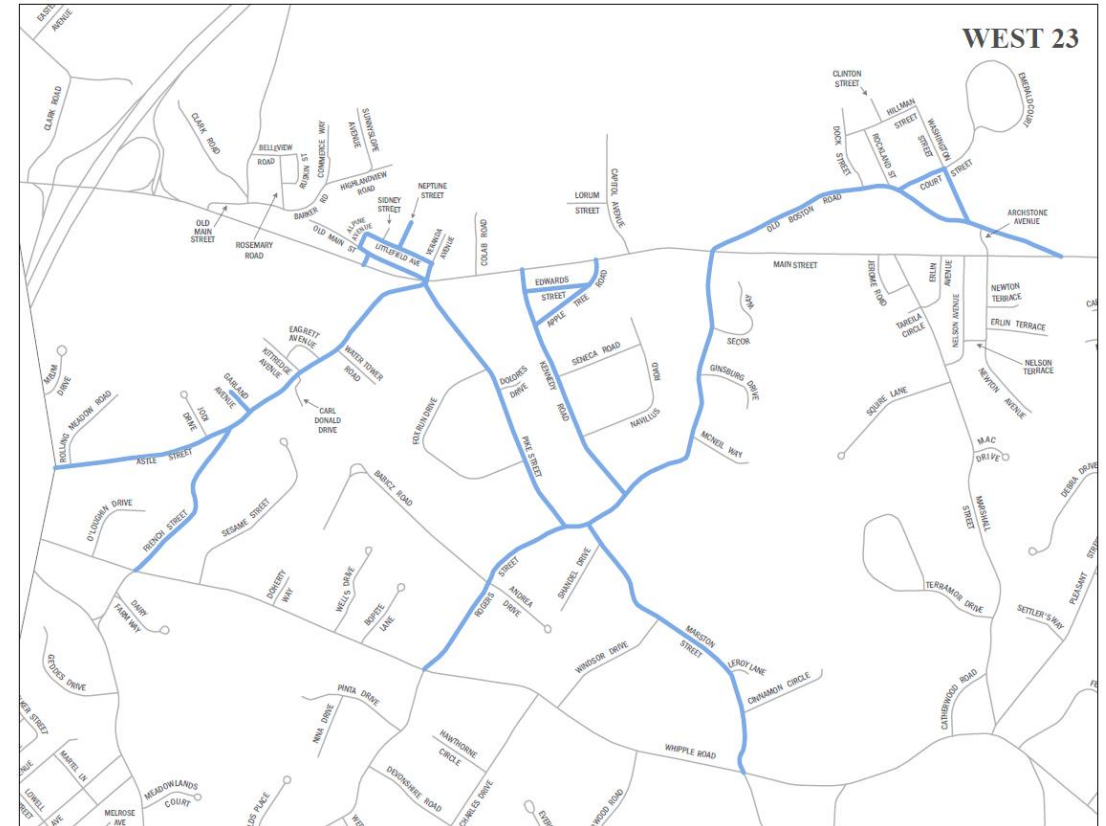


# Operating Procedures

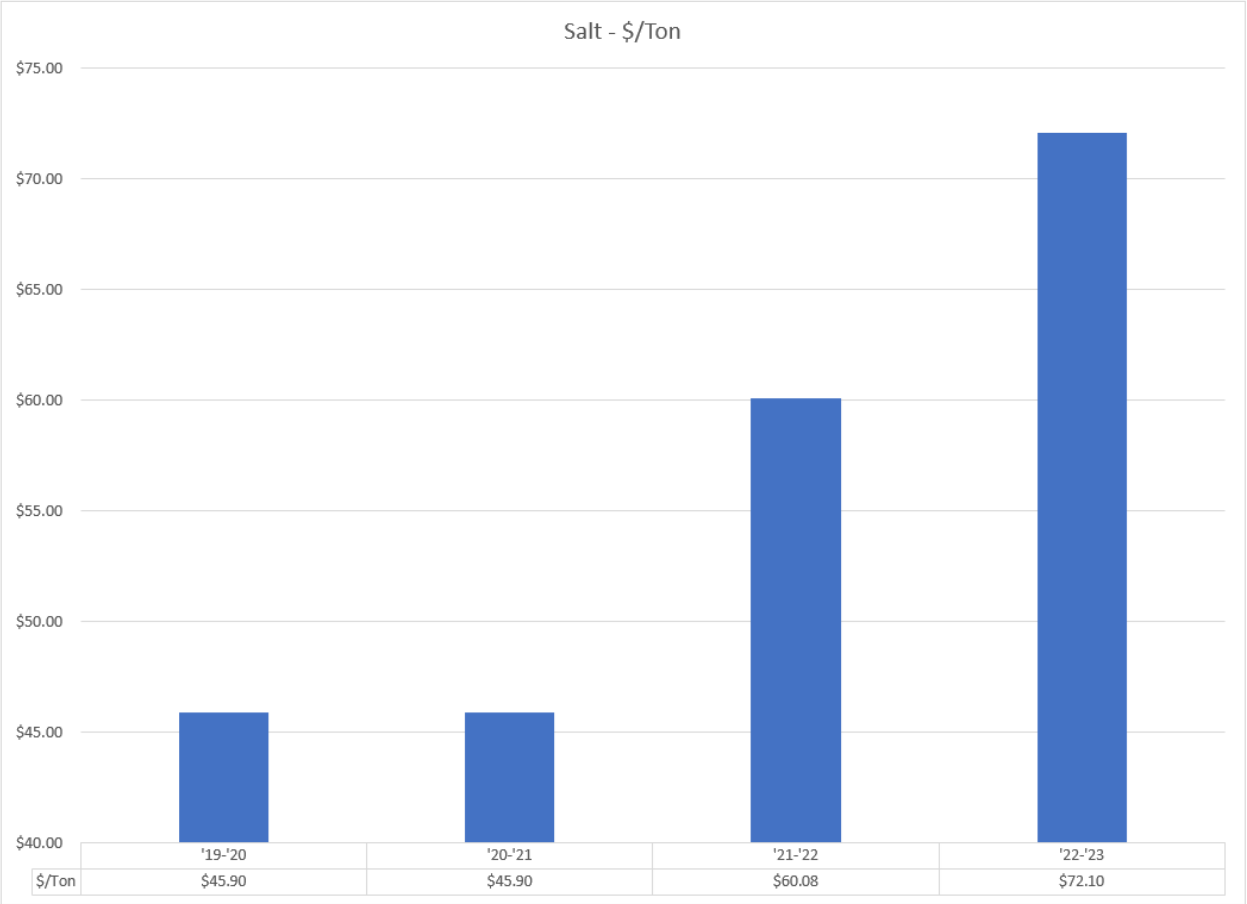
- Organization
  - The Town is divided into (5) five Sections;
    - (North, South, East, West and Center)
  - Each section is managed by a route supervisor who monitors the progress of plow drivers and their assigned routes. Route Supervisors move equipment as needed;
  - The Snow and Ice Coordinator manages the (5) section Route Supervisors;
  - The Assistant Director for Highway, Forestry and Fleet oversees the entire operation.
- Equipment
  - The DPW utilizes (25) in-house staff and Park Dept. staff (2); In recent years School Dept staff have become more involved and critical to the entire operation;
  - Contracted equipment can vary from year to year, but is approximately 41-62 pieces of equipment, which has been more difficult to enlist in recent years;
  - Equipment ranges from small pickup trucks to large loaders.
- Operational Adjustments
  - Conducted a route assessment and modified route assignments for Liquid applications, salting and plowing;
  - Utilizing Bobcat Loaders to clear Parking lots: reassigning trucks to street routes;
  - Adjusted Contractor rates to meet competitive market pricing;
  - Modified hourly rate for DPW retirees to meet market pricing.

# Salting Routes

- 5 Major sections in Town;
- 13 Salting Routes total;
- Equipment is calibrated to meet Chlorine Reduction Plan;
- Approximately 64% reduction in per storm volume as a result.

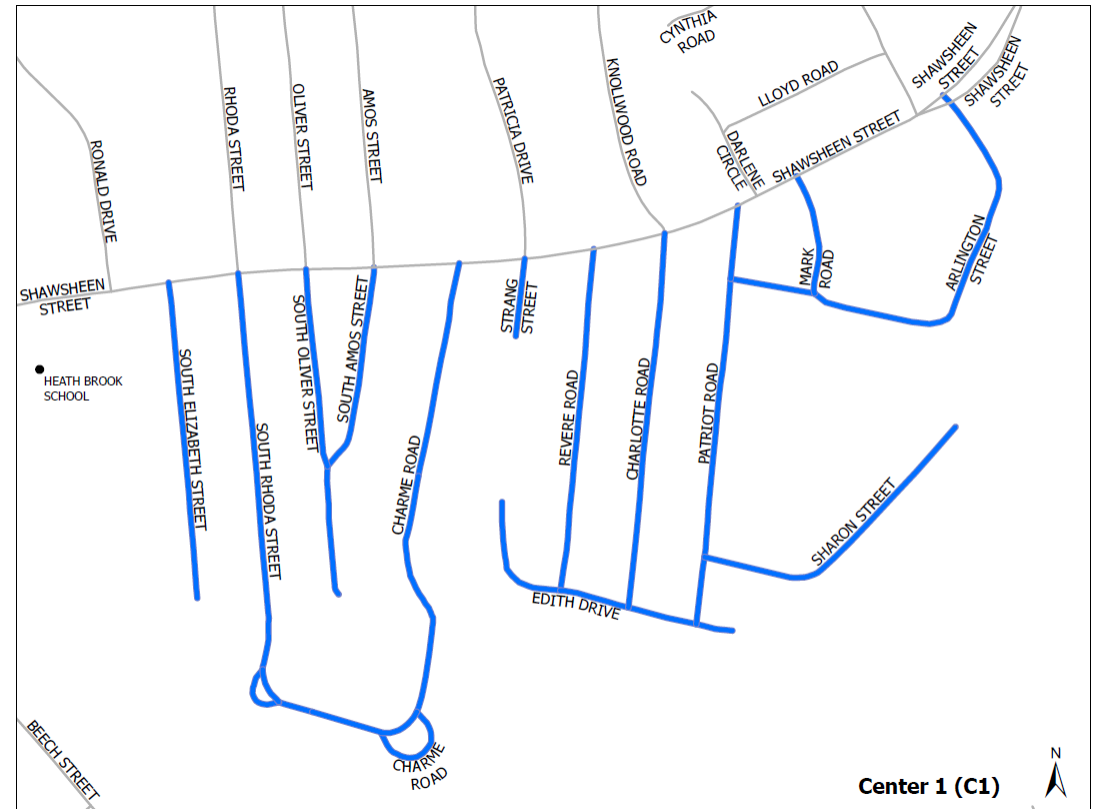


# Salting Cost Per Ton

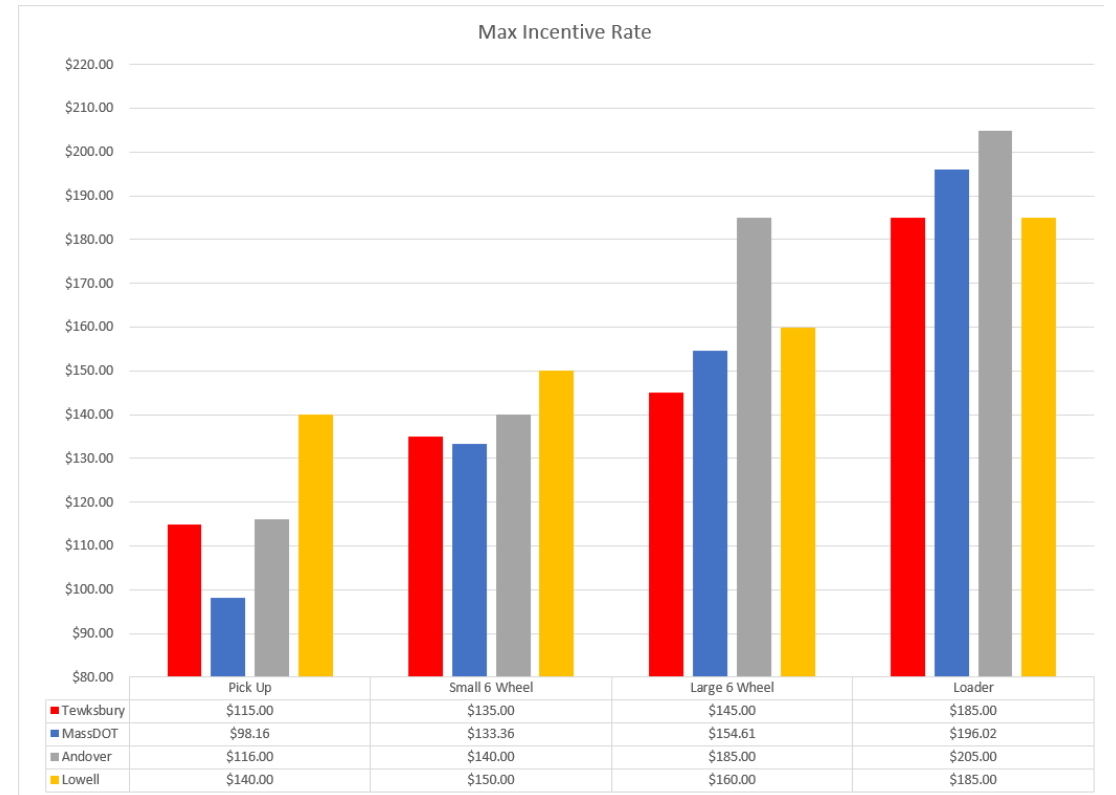
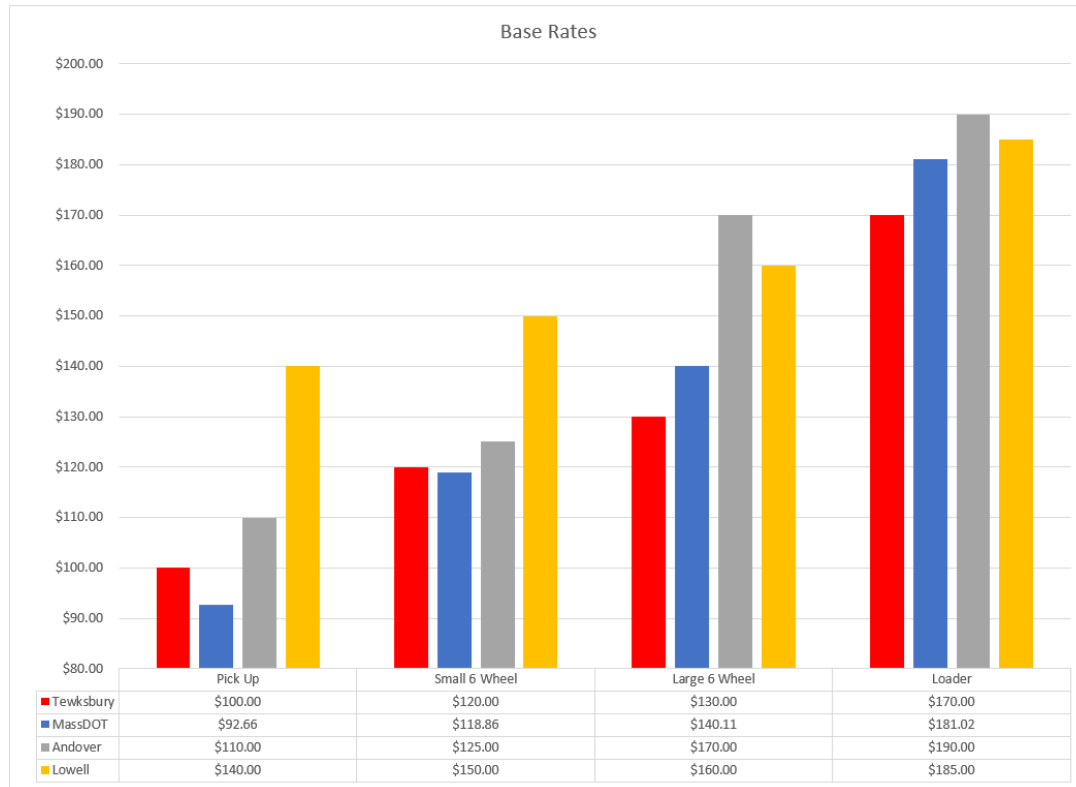


# Plowing Routes

- 5 Major sections in Town
- 48 Plow Routes
  - (Excluding Major Road Network)
- Allows Town to know the exact contractor responsible and ensure proper coverage due to unforeseen circumstances such as breakdowns

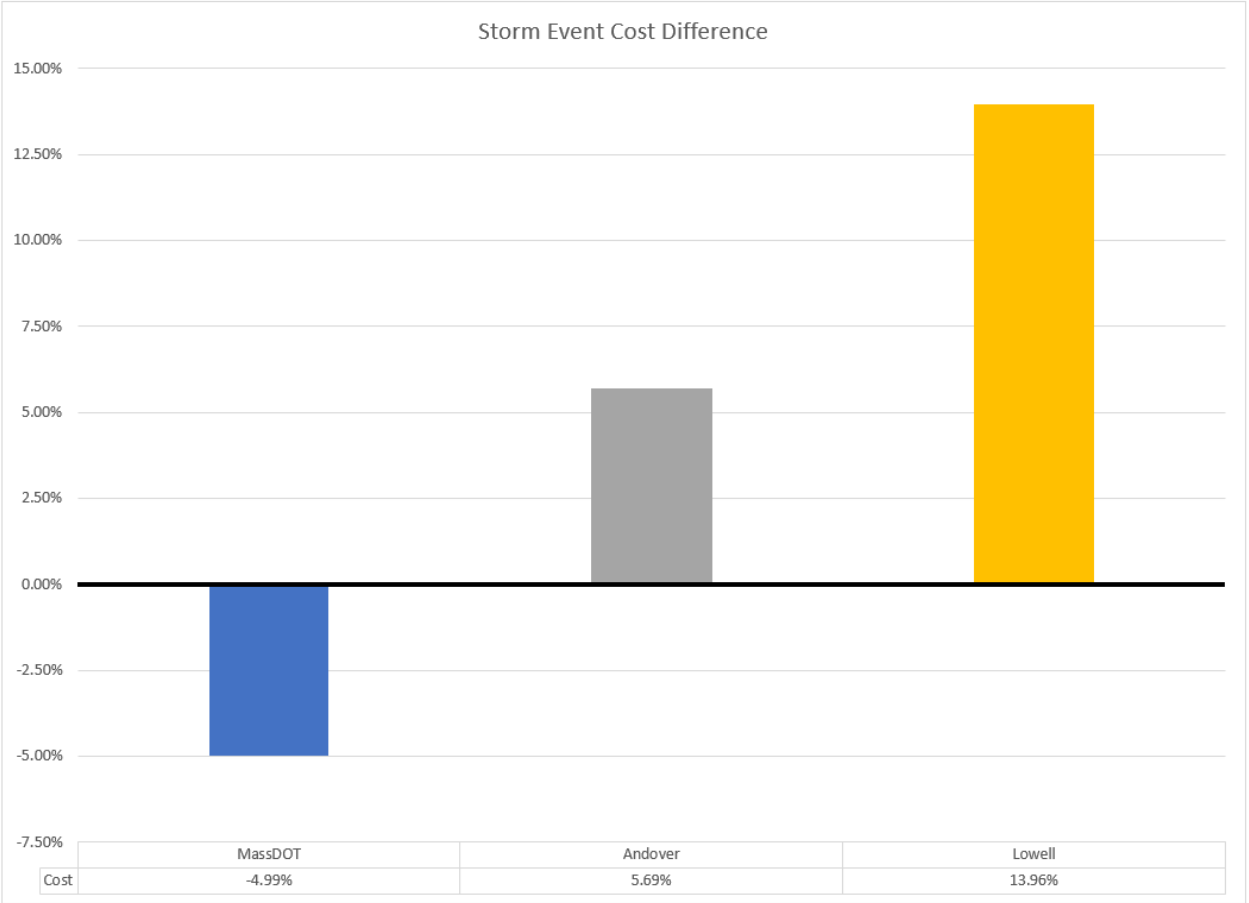


# Contractor Rates

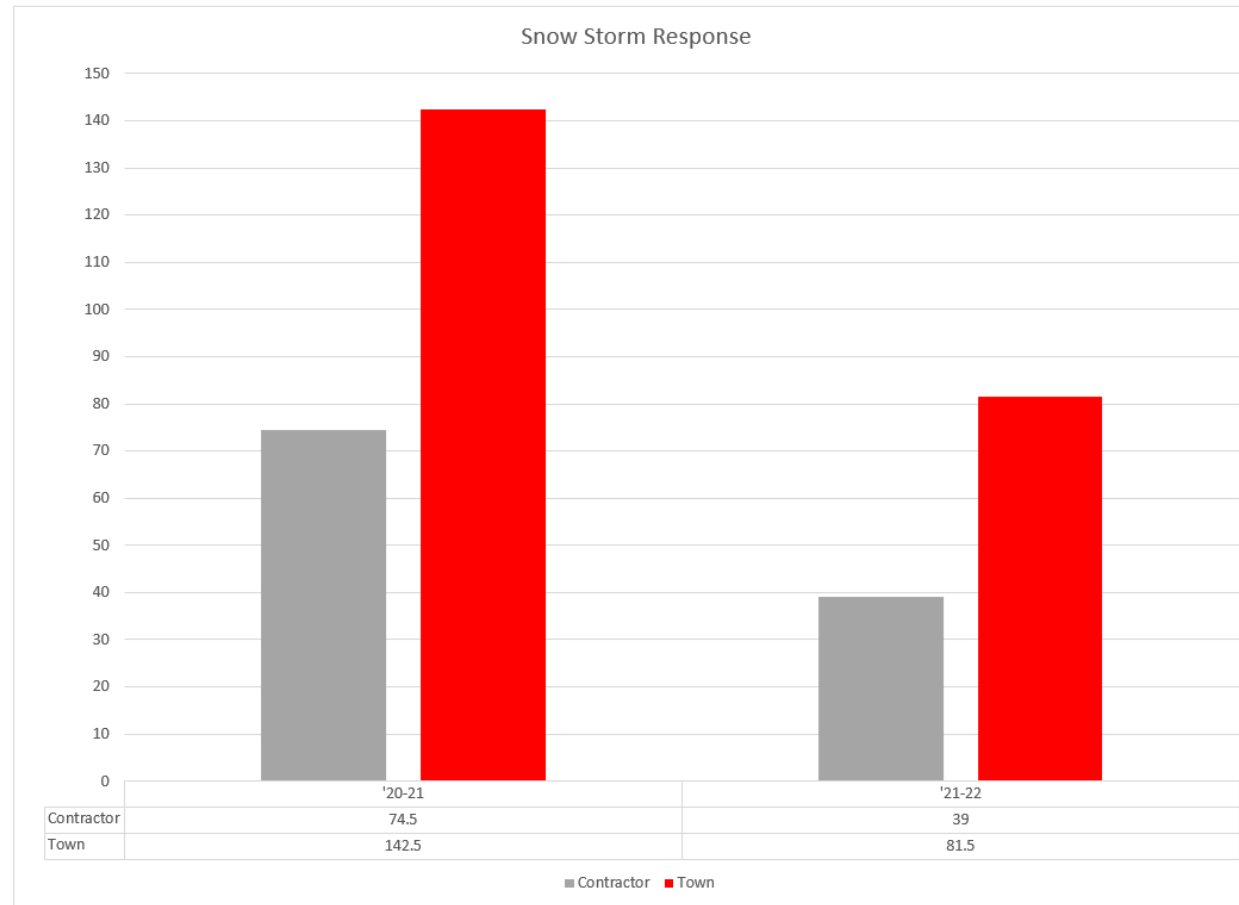




# Storm Event Cost Difference



# Contractor Usage



## How residents can help

- Observe all winter parking bans and remove all roadside obstacles
- Keep trash and recycling containers off the street and interior to the driveway opening
- Reduce your speed and drive cautiously
- Clear snow away from hydrants in front of your home or business. This will greatly help the Fire Department in an emergency
- Shovel to open catch basins that may become covered with snow-pack to allow streets to drain as snow melts
- Don't plow or blow snow onto the road
- Understand when the snow stops the plowing operation has not; requiring plows to push back windrows that may fill in and block your driveway
- A mixture of sand and salt is available at the DPW for Residents (NOT Contractors) at a designated area outside the DPW gate
- Please have patience. Snow plowing is a time consuming and arduous job covering approximately 157 miles of roads in Town. Some residents will have their road plowed first and some will be last, but by the end of our operation all town roads will be cleared.